20 Learning & Teaching Strategies: Brain Research

1. The brain learns from its environment. Enrich the learning environment.
2. One's personal, emotional state greatly influences what is recalled during a learning episode. Deal with emotional influences in your classroom before teaching.
3. Prime the brain for learning. Provide visual outlines or show select pictures representing different parts of the upcoming lesson.
4. Give the brain time to process verbal information. Pause 3-7 seconds between important statements.
5. Wait 5 seconds after asking a factual question and 10 seconds after asking a complex question.
6. Present, rehearse, apply, then review.
7. Develop concept before content.
8. Teach by asking questions.
9. Teach pattern recognition. Often.
10. Research suggests that neurons need some downtime to consolidate information. Teach new information over time, providing periodic review. The % of information remembered increases as the learning episode shortens and decreases as the lesson time lengthens.
11. Change the type of instruction or student activity every 20 minutes.
12. Teach students how to ask great questions while they are reading.
13. Periodically, have students record/share 3 things they learned from the lesson or 3 things they found interesting.
14. Sleep is required to store information into long term memory. John Hopkins
15. University found that it takes 6 hours for a new skill to be consolidated and tagged for long term storage. (Teenagers need at least 9 hours of sleep a night).
16. Have students listen to music before writing and spatial reasoning activities.
17. On average, learners will only remember 5% of a lecture 24 hours after it is given. However, they will remember 90% of the information 24 hours later if they teach it to someone else.
18. Use personal, white, dry erase boards in class to check for understanding as you are teaching.
19. Very specific and positive comments will be remembered over time and will be immediately motivating to the students.
20. Journaling has been found to improve memory and cognition. It enhances motivation to read and reading comprehension.